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Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S1 (R,S) Examination December 2025 (2024 Scheme)

Course Code: GMEST103
Course Name: ENGINEERING GRAPHICS AND COMPUTER AIDED DRAWING

Max. Marks: 60 Duration: 2 hours 30 minutes

Instructions: Retain Construction lines. Show necessary dimensions. Answer any ONE question fromeach module. Each question carries 15 marks

MODULE 1

			Marks
1	The end C of a line CD is on HP and 25 mm in front of VP. Line is inclined at 30^0 to HP and 45^0 to VP. Draw its projections and find the apparent length and apparent inclinations. Assume that the length of CD is 80 mm. Also locate its traces.	CO - 1	(15)
2	A line PQ of length 60 mm has its end P is 15 mm above HP and 20 mm in front of VP. Its top view and front view measures 50 mm and 40 mm respectively. Draw its projections and determine its true inclinations with HP and VP. Also mark its traces.	CO - 1	(15)

MODULE 2

			Marks
3	A hexagonal pyramid of base side 30 mm and axis length 60 mm is resting on one of its base corners on HP. Its axis is inclined at 30^0 to HP and top view of the axis is inclines at 45^0 to VP. Assume that the apex of the pyramid is positioned in such a way that it is away from VP and towards right side.	CO - 2	(15)
4	A cube of 40 mm side is resting on one of its corners on HP. Draw its projections if the body diagonal of the cube is perpendicular to VP.	CO - 2	(15)

MODULE 3

			Marks
5	A pentagonal pyramid with base edge length 30 mm and height 60 mm is resting on HP on its base. One of its base edges is parallel to VP and 20 mm in	CO - 3	(15)

front of it. This solid is sectioned by a plane inclined at 40^0 to HP, perpendicular to VP and is passing through the midpoint of the axis of the solid. Assume that the top portion is removed by the section plane, draw the development of the remaining portion of the solid.

6 A square prism of base side 35 mm and axis length 65 mm is resting on its base on HP. One base edge is inclined at 45^0 to VP. It is sectioned by a plane which is inclined to HP and perpendicular to VP. Assume that the section plane is passing through one of the body diagonals of the solid. Draw its front view, sectional top view and true shape of the section. What is the inclination of the section plane with XY line. CO - 3 (15)

MODULE 4

Marks

7 Draw the isometric view of a square pyramid, side of base 24mm and height 40mm rests with its base centrally on the circular face of a hemisphere of diameter 50mm. CO - 4 (15)

8 A cylinder of base diameter 40 mm and axis length 55 mm is placed centrally on the top surface of a square plate with side 55 mm X 55 mm and thickness of 18 mm. Draw the isometric view of the combination of this solid. CO - 4 (15)

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